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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,883	01/09/2002	Sanjaya Kumar	ANDIP007/425104	1172
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BEYER WEAVER LLP P.O. BOX 70250 OAKLAND, CA 94612-0250			EXAMINER SERRAO, RANODHI N	
			ART UNIT 2141	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/045,883	Applicant(s) KUMAR ET AL.	
	Examiner RANODHI N. SERRAO	Art Unit 2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-29,31-40 and 42-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-29,31-40 and 42-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 19-29, 31-40, 42-52 have been considered but are moot in view of the new ground(s) of rejection.
2. The applicant argued in substance the newly added limitations of independent claims 19-21, 32-35, and 50-52. However, the new grounds teach these and the added features. See rejections below.
3. Furthermore, the applicant did not respond to the rejection of claim 55 under 35 U.S.C. 112, first paragraph, therefore the rejection is maintained.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:
5. As per claim 55, see below rejection under 35 U.S.C. 112, first paragraph.
6. As per claims 17, 33, and 51, there is no corresponding structure (or material or acts) of a means (or step)-plus-function limitation disclosed in the specification as pointed out by the rejection under 35 U.S.C. 112, second paragraph below.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 55 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 55 recites a method as recited in claim 1, wherein each of the virtual ports is **not related** to the associated port by a virtual-to-physical address mapping. Emphasis added. There is no description or indication in the instant application's specification that each of the virtual ports is not related to the associated port by a virtual-to-physical address mapping.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1, 3-18, 33, 51, and 54-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11. Claim 1 recites the limitations, "a port" and "a network device" multiple times in lines 9, 10, and 18-20. It is unclear whether these refer to the same port and network device or not. The claim language is indefinite since it can cover both the cases where the port and/or network device is not the same for each of the virtual ports and where it is the same for each of the virtual ports. Claims 16-18 contain similar recitations and

therefore are rejected under the same rationale. Claims 3-15 and 54-58 are rejected as per their dependencies on the above-mentioned independent claims.

12. Claims 17, 33, and 51 recite “means for” language however there is no corresponding structure (or material or acts) of a means (or step)-plus-function limitation disclosed in the specification itself in a way that one skilled in the art will understand what structure (or material or acts) will perform the recited function. 35 U.S.C. 112, sixth paragraph states that a claim limitation expressed in means-plus-function language “shall be construed to cover the corresponding structure... described in the specification and equivalents thereof.” “If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112.” *In re Donaldson Co.*, 16 F.3d 1189, 1195, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994) (in banc). See MPEP § 2181. For the purposes of examination, the examiner interprets these claims without the “means for” limitations.

Claim Rejections - 35 USC § 102

13. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

14. Claim 19-21, 32-35, and 50-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Terrell et al. (7,200,144).

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15. As per claim 19, Terrell et al. teaches a method of performing LUN mapping in a storage area network, the method comprising: accessing a LUN mapping table having one or more entries, each of the entries identifying an initiator in the storage area network (col. 41, line 26-col. 42, line 49), one or more of a set of one or more virtual ports of a virtual enclosure, and associating a specified logical unit with one or more virtual storage units (col. 52, lines 1-52), wherein a number of virtual ports to be included in the virtual enclosure is configurable (col. 32, lines 11-24), each of the virtual storage units representing one or more physical storage locations on one or more physical storage units of the storage area network (col. 15, lines 15-25), wherein the virtual enclosure is a virtual entity adapted for representing the set of one or more virtual storage units (col. 10, lines 46-67) and each of the virtual ports is associated with a port of a network device within the storage area network such that the virtual ports of the virtual enclosure are associated with one or more ports of one or more network devices within the storage area network (col. 50, lines 21-42), wherein the port of the network device has received a message from another network device instructing the port to handle messages addressed to the associated virtual port that are received by the port of the network device subsequent to the message sent by the another network device such that the another network device instructs the port of the network device to act on behalf of the virtual port (col. 34, lines 31-64); and when a request for the specified logical unit is received from the initiator via one of the associated virtual ports, identifying one of the entries in the LUN mapping table and employing the one or more

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virtual storage units specified in the entry to service the request (col. 50, line 55-col. 51, line 38).

16. As per claim 21, Terrell et al. teaches in a first network device, a method of implementing storage virtualization in a storage area network, the method comprising: sending a virtualization message to a port of a second network device within the storage area network, the virtualization message instructing the port to handle messages addressed to a virtual port of a virtual enclosure, the virtual enclosure being a virtual entity having one or more virtual ports and being adapted for representing one or more virtual storage units (col. 5, lines 12-37), wherein a number of virtual ports to be included in the virtual enclosure is configurable (col. 32, lines 11-24), each of the virtual storage units representing one or more physical storage locations on one or more physical storage units of the storage area network (col. 15, lines 15-25), wherein the virtualization message indicates that the port is to handle messages addressed to an address or identifier assigned to the virtual port that are received by the port of the second network device subsequent to the virtualization message sent by the first network device such that the first network device instructs the port of the second network device to act on behalf of the virtual port (col. 34, lines 31-64); and receiving a virtualization response from the port of the second network device in response to the virtualization message (col. 73, line 51-col. 74, line 2).

17. Claims 20, 32-35, and 50-52 have similar limitations as to claims 19 and 21 above; therefore, they are being rejected under the same rationale.

Claim Rejections - 35 USC § 103

18. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

19. Claims 22-28, 37, 39, 43, 46, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terrell et al. as applied to claims 21, 35, and 52 above, and further in view of Blumenau et al. (6,260,120).

20. As per claim 22, Terrell et al. teaches the mentioned limitations of claim 34 above but fails to teach a method, wherein the virtual enclosure port is identified by a NWWN and a PWWN. However, Blumenau et al. teaches a method, wherein the virtual enclosure port is identified by a NWWN and a PWWN (see Blumenau et al., column 12, lines 27-54). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Terrell et al. to a method, wherein the virtual enclosure port is identified by a NWWN and a PWWN in order to create a method that may be transparent to any high-level file system procedures that may be used by the hosts for managing access to files stored in the logical volumes to which a host is permitted to access (see Blumenau et al., col. 2, lines 19-41).

21. As per claims 23-28, 37, 39, 43, 46, and 49, the above-mentioned motivation of claim 22 applies fully in order to combine Blumenau et al. and Terrell et al.

22. As per claim 23, Blumenau et al. and Terrell et al. teach an apparatus, wherein the virtualization response indicates that the port is configured to handle messages addressed to the virtual port of the virtual enclosure (see Terrell et al., ¶ 25).

23. As per claim 24, Blumenau et al. and Terrell et al. teach an apparatus, wherein the virtualization message indicates that the port is to obtain an address or identifier assigned to the virtual port (see Terrell et al., ¶ 25).

24. As per claim 25, Blumenau et al. and Terrell et al. teach an apparatus, wherein the virtualization message is a bind message or a trap message (see Blumenau et al., column 11, lines 41-57).

25. As per claim 26, Blumenau et al. and Terrell et al. teach an apparatus, wherein the virtualization response comprises the address or identifier assigned to the virtual port (see Blumenau et al., column 11, line 58-column 12, line 8).

26. As per claim 27, Blumenau et al. and Terrell et al. teach an apparatus, wherein the virtualization message indicates that the port is to obtain an address or identifier assigned to the virtual enclosure port from a DNS server (see Terrell, ¶ 96).

27. As per claim 28, Blumenau et al. and Terrell et al. teach a method, further comprising: receiving an address or identifier assigned to the virtual port (see Blumenau et al., column 12, lines 27-54).

28. As per claim 37, Blumenau et al. and Terrell et al. teach a method, further comprising: obtaining and storing the address or identifier assigned to the virtual port (see Blumenau et al., column 12, lines 27-54).

29. As per claim 39, Blumenau et al. and Terrell et al. teach a method, further comprising: sending the address or identifier assigned to the virtual port (see Blumenau et al., column 12, lines 27-54).

30. As per claim 43, Blumenau et al. and Terrell et al. teach a method, further comprising: handling messages addressed to the address or identifier assigned to the virtual port (see Blumenau et al., column 16, line 60-column 17, line 19).

31. As per claim 46, Blumenau et al. and Terrell et al. teach a method, further comprising: receiving a report message requesting an identification of one or more of the virtual storage units supported by an address or identifier assigned to one of the virtual ports (see Blumenau et al., column 12, lines 27-54); sending a reply message identifying one or more of the virtual storage units (see Blumenau et al., column 25, lines 50-67).

32. As per claim 49, Blumenau et al. and Terrell et al. teach a method, wherein the one or more of the virtual storage units identified in the reply message are those virtual storage units that are visible to an initiator sending the report message (see Blumenau et al., column 25, lines 50-67).

33. Claims 29, 31, 36, 38, 40, 42, 44, 45, 47, and 48 have similar limitations as to claims 19, 21-28, 37, 39, 43, 46, and 49, above; therefore, they are being rejected under the same rationale.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/R. N. S./

Examiner, Art Unit 2141

7/30/2008

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2144